

REMARKS

Claims 1-37 remain pending in the application. Such claims stand rejected as being over Demaray. Applicant disagrees with the rejections, and requests reconsideration.

Referring first to claim 1, such recites a method wherein a first mass is diffusion bonded to a second mass, and simultaneously grains are developed within a material of the second mass. Further, the claim recites that a predominate portion of the developed grains have a maximum dimension of less than 100 microns.

Claim 1 is not anticipated by Demaray for at least the reason that the reference does not disclose or suggest all of the recited features of claim 1. For instance, the reference does not suggest or disclose the recited development of grains wherein a predominate portion of the developed grains have a maximum dimension of less than 100 microns. For at least this reason, claim 1 is allowable over Demaray, and Applicant therefore requests such allowance in the Examiner's next action.

Applicant notes that the claim 1 recitation of developed grains having a maximum dimension of less than 100 microns is also not rendered obvious by Demaray. Applicant indicates at page 5, line 17 through page 6, line 7 of the originally-filed application that an advantage of having grain sizes of less than 100 microns in sputtering targets is that the smaller grains can improve sputtering processes relative to sputtering occurring from a target material having larger grains. Such disclosure provides an advantage for Applicant's recited material having a predominate portion of developed grains with a maximum dimension of less than 100 microns, and evidences the non-obviousness of Applicant's recited method relative to processes which form materials having grain sizes greater than 100 microns.

For the above-discussed reasons, claim 1 is allowable over the cited reference of Demaray. Applicant therefore requests formal allowance of claim 1 in the Examiner's next action.

Claims 2-9 depend from claim 1, and are therefore allowable for at least the reasons discussed above regarding claim 1, as well as for their own recited features which are neither shown nor suggested by the cited reference.

Referring next to claim 10, such claim, like the above-discussed claim 1, recites a process wherein grains are developed in a material during a diffusion bonding process, and wherein a predominate portion of the developed grains have a maximum dimension of less than 100 microns. Claim 10 is therefore allowable for reasons similar to those discussed above regarding claim 1, and Applicant therefore requests formal allowance of claim 10 in the Examiner's next action.

Claims 11-25 depend from claim 10, and are therefore allowable for at least the reasons discussed above regarding claim 10, as well as for their own recited features which are neither shown nor suggested by the cited reference.

Referring next to claim 26, such claim, like the above-discussed claim 1, recites a process wherein grains are developed in a material during diffusion bonding, and wherein a predominate portion of the developed grains are less than 100 microns in maximum dimension. Claim 26 is therefore allowable for reasons similar to those discussed above regarding claim 1, and Applicant therefore requests allowance of claim 26 in the Examiner's next action.

Claims 27-37 depend from claim 26, and are therefore allowable for at least the reasons discussed above regarding claim 26. Applicant therefore requests formal allowance of claims 27-37 in the Examiner's next action.



Applicant notes that to the extent the Examiner contends that the recited maximum grain size of less than 100 microns is inherent in the process of Demaray, the Examiner is mistaken. The processes described in Demaray for binding materials together are significantly different than the processes discussed in Applicant's disclosure for achieving the recited developed grains in which a predominate portion of the developed grains have a maximum dimension of less than 100 microns. It is therefore inconceivable that it could be considered "inherent" that the processes of Demaray would achieve the recited formation of developed grains in which a predominate portion of such grains have a maximum dimension of less than 100 microns. For this additional reason, Applicant's claims 1-37 are allowable over the cited reference.

Respectfully submitted,

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